Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently Amended) An articulated boom for a space based antenna reflector system having an antenna reflector supported on said boom; wherein:

said boom comprises a support arm having ~~a plurality of~~ at least three hinged joints;

said support arm is adapted and arranged to carry the antenna reflector so that in use, the antenna reflector can move between a first, stowed, position in which the reflector is nested within a predetermined volume of a spacecraft; and a second, deployed, position in which the reflector is deployed in space outside said predetermined volume;

said support arm includes a dog-leg portion located between two of said hinged joints, that permits stowage of said antenna reflector in said stowed position; and

said dog-leg portion is configured and positioned such that said dog-leg portion [[it]] extends at least partially along a circumference of the antenna reflector when said antenna reflector is in said stowed position.

Claims 2.-4. (Cancelled)

Claim 5. (Previously Presented) The articulated boom as claimed in claim 1, wherein at least one of said hinged joints comprises an articulated stepper motor harmonic drive unit.

Claim 6. (Previously Presented) The articulated boom as claimed in claim 1, wherein at least one of said hinged joints comprises a spring-operated mechanical hinge.

Claims 7.-9. (Cancelled

Claim 10. (Currently Amended) The articulated boom as claimed in claim 1, wherein:

the ~~support arm is sufficiently long to carry an~~ antenna reflector has a diameter of approximately 3.5 metres ~~diameter~~ with an associated focal length of approximately 7 metres; [[.]] and

the support arm is configured to be sufficiently long to carry the 3.5 metre antenna reflector.

Claim 11. (Currently Amended) The articulated boom as claimed in claim 1, wherein the hinged joints are bolted using flexible metal brackets, which brackets are sufficiently flexible ~~with a degree of flexibility~~ to accommodate [[for]] changes in material properties of the boom in response to temperature variations between +140°C and -180°C.

Claim 12. (Currently Amended) The articulated boom as claimed in claim 1, wherein:

one end of the support arm is mounted to an associated feed structure of the spacecraft, via one of said hinged joints; and

the opposing end of the support arm is mounted to the antenna reflector, via another of said hinged joints.

Claim 13. (Currently Amended) The articulated boom as claimed in claim 12, wherein:

in the stowed position, the antenna reflector is foldably mounted to a sidewall of the spacecraft on a plurality of hold-down points; and

said hold-down points are operably released prior to deployment of the reflector.

Claim 14. (Previously Presented) The articulated boom as claimed in claim 13, wherein said hold-down points are formed such as to provide a degree of compliance, such that the boom and the spacecraft do not impart unwanted thermal expansion loads on each other.

Claim 15. (Withdrawn) A spacecraft comprising:

at least two booms of the type claimed in claim 1; and

at least two antenna reflectors that are deployable on said booms from at least one side of the spacecraft.

Claim 16. (Withdrawn)The spacecraft as claimed in claim 15, wherein support arms of the at least two booms are positioned at a circumference of associated reflectors when in the stowed position, so as to allow the reflectors to be stacked together within a space defined by an associated launch vehicle fairing.

Claim 17. (Currently Amended) A spacecraft having ~~incorporating into at least one side thereof a hinged support structure including~~ an antenna reflector supported on [[with]] a boom; wherein: ~~as defined in claim 1.~~

said boom comprises a support arm having at least three hinged joints;

said support arm is adapted and arranged to carry the antenna reflector so that in use, the antenna reflector can move between a first, stowed, position in which the reflector is nested within a predetermined volume of the spacecraft; and a second, deployed, position in which the reflector is deployed in space outside said predetermined volume;

said support arm includes a dog-leg portion located between two of said hinged joints, that permits stowage of said antenna reflector in said stowed position; and

said dog-leg portion is configured and positioned such that said dog-eg portion extends at least partially along a circumference of the antenna reflector when said antenna reflector is in said stowed position.

Claim 18. (Currently Amended) The spacecraft as claimed in claim 17, wherein an associated feed structure is mounted to a separately-formed floor of the ~~space vehicle~~ spacecraft.

Claim 19. (Withdrawn) A spacecraft incorporating into at least one side thereof

(a) a first hinge-mounted support structure including an antenna reflector with a boom as defined in claim 1; and

(b) a second different hinge-mounted support structure for carrying a plurality of antenna reflectors.

Claim 20. (Previously Presented) A reflector system for space-based applications incorporating an antenna reflector with supporting boom as defined in claim 1.

Claim 21. (Previously Presented) An antenna structure incorporating a reflector system as defined in claim 20.

Claims 22.-23. (Cancelled)

Claim 24. (Withdrawn) A method of stacking a plurality of deployable antenna reflectors in spacecraft, said method comprising:

providing a first antenna reflector with a first articulated boom having a support arm defining a number of hinged joints, the arm being adapted and arranged to carry an antenna reflector so that in use, the reflector can move between a first stowed position in which the reflector is in folded condition and a second deployed position in which the reflector is in deployed condition;

moving said first antenna reflector to a first nesting position close to a sidewall of the spacecraft in such a manner that its supporting boom follows a circumference of the first antenna reflector along a first path;

providing a second antenna reflector with a second articulated boom which is substantially identical to the first articulated boom; and

moving said second antenna reflector to a second nesting position close to the sidewall of the spacecraft in such a manner that its supporting boom follows a circumference of the second antenna reflector along a second path such that the first and second reflectors are juxtaposed in a stacked relationship.

Claim 25. (Cancelled)

Claim 26. (Previously Presented) The articulated boom as claimed in claim 1, wherein, in said stowed position, said dog-leg portion lies within a first

plane that is substantially parallel to a second plane defined by said antenna reflector.

Claim 27. (Previously Presented) The articulated boom as claimed in claim 26, wherein:

the dog-leg portion is coupled to the spacecraft by a hinged joint that provides for pivotal rotation of said dog-leg portion about a pivot axis; and

said pivotal axis is substantially parallel to said first plane.

Claim 28. (New) An articulated boom for a space based antenna reflector system having an antenna reflector supported on said boom, said boom comprising:

a first hinged joint for connecting a first end of said boom to a wall of a spacecraft;

a second hinged joint for connecting a second end of said boom to said antenna reflector; and

a third hinged joint which connects a first portion of said boom to a second portion of said boom at a point intermediate said first and second ends of said boom; wherein

said boom is adapted and arranged to carry the antenna reflector so that in use, the antenna reflector can move between a first, stowed, position in

which the reflector is nested within a predetermined volume of said spacecraft; and a second, deployed, position in which the reflector is deployed in space outside said predetermined volume;

one of said first and second portions of said boom includes a dog-leg portion that permits stowage of said antenna reflector in said stowed position; and

said dog-leg portion is configured and positioned such that, when said reflector is in said stowed position, said dog-leg portion is disposed in a plane adjacent one side of said antenna reflector, and extends in said plane at least partially along a circumference of the antenna reflector.